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October 22, 1952

Dear Dr. Dianzini:

I have your postcard concerning a comment on your transformation experiments which I sent to the informal Microbial Genetics Bulletin about two years ago. Perhaps you are due an apology on this matter. Dr. Austrian (from whose review I suspect you gained the reference) misconstrued the functions of the Bulletin, and should not have cited it as a publication. On April 1, 1952, I wrote to him as follows:

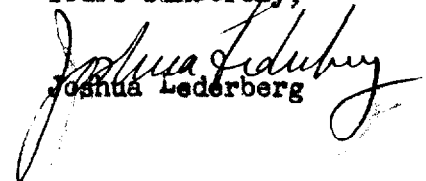
"This brings me to the point of this letter, your reference 26. From the very beginning, as I understood it, (see p. 4, MGB-1), MGB has been agreed not to be a publication, and citations should not be made to it. I would not have submitted my comment quoted as ref. 26 on any other basis. Before such a comment is quoted at length in an unrestricted publication, I would think that Dianzini should have an opportunity to reply. M In response, Dr. Austrian submitted an erratum which, at least formally, withdrew this reference.

I regret that Mrs. Witkin (Dr. E. M. Witkin, Genetics Department, Carnegie Institution, Cold Spring Harbor, L.I., N.Y.) had not already solicited a reply from you for MGB. I am sure that she would be pleased still to hear from you, and that many of my colleagues would be interested to have a brief comment from you on further developments in this work.

May I add that quite independently of this, we have succeeded in conducting "transformations" in Salmonella, involving a variety of markers, but including fermentative changes. The active principle is, however, not a DNA extract, but the lysate evoked by certain phages. I should be most interested to hear further details on your own work, particularly with respect to the questions raised by my comment, and in my similar letter to you of January 9, 1951. Reprints of our studies should be available within a short time, and will be sent to you.

Enclosed please find a "Reprint" as you requested. I hope that the misunderstanding has not embarrassed you.

Yours sincerely,


Joshua Lederberg

COMMENT ON RECENT PAPERS

"Mutation in the enzymatic equipment of Escherichia coli and Proteus OK 19 directed by desoxyribonucleic acid isolated from bacteria of the same and of different species."

Dianzini, M.U. (1950) *Experientia*, 6: 332

This paper refers to "transformations" of E. coli and of Proteus with respect to carbohydrate utilization patterns. Very few details are given, but this paper leaves the impression that changes had been induced in the fermentative patterns of the treated cultures. This was of special interest to the undersigned, as fermentation markers are of some importance in genetic recombination studies. Dr. Dianzini was especially kind to discuss some details, and to send some of his cultures.

A parallel paper, "Mutazioni indotte dagli acidi nucleici batterici," *Bollettino Istituto Sieroterapeutico Milan*, 29: 161-172, gives further details. The cultures were studied manometrically, but unfortunately the bacteria were harvested from plain agar, so that enzymatic adaptation to the different carbohydrate substrates was not considered. The experimental QO₂ values therefore refer to the residual "constitutive" activity. Dianzini refers to the adaptation of control cultures to sucrose by growth on this substrate, so that it is not entirely clear how stable his characters are in the absence of DNA treatment.

Of the cultures sent by Dianzini, one was reported to be an induced sucrose-oxidiser. In fermentation tests it was indistinguishable from the culture from which it was stated to have originated, and quite different from the sucrose-positive transforming culture.

It is to be hoped that these studies will be continued, as they are obviously quite important. However, whatever the characters are which Dianzini has transformed, they do not appear to deal with the fermentative markers used in genetic recombination studies in E. coli.--J. Lederberg, Department of Genetics, University of Wisconsin, Madison, Wisconsin.